IN THE SPECIFICATION

Please replace the paragraph beginning on page 10, line 9 and ending on page 10 line 17 with the following paragraph:

B1

Writing element 180 operates with a perpendicular recording medium, such as a disc 132~~ (FIG. 2)~~, having a hard recording layer 160 overlaying a soft magnetic layer 158 to perform the desired perpendicular recording. Magnetic signals generated by conductive coil 186 directs the orientation of magnetization vectors 198 in a desired direction. Soft magnetic layer 158 operates to further assist in the orientation of magnetization vectors 198 in the desired direction and to orient the magnetic moments ~~(such as~~ 162 ~~of FIG. 2)~~ of hard recording layer 160~~2 accordingly~~.

Please replace the paragraph beginning on page 10, line 18 and ending on page 11 line 2 with the following paragraph:

B2

Writing element 182 includes an auxiliary pole 200 formed of a soft magnetic material that is separated from writing pole 184 by a writer gap 202. Auxiliary pole 200 includes an auxiliary pole tip 204 at ABS 192. Magnetic signals generated by conductive coil 186 produce~~s~~ a fringing magnetic field 205b from writing pole 184 across writer gap 202 to auxiliary pole 200. Auxiliary pole 200 operates in a similar fashion as the soft magnetic underlayer 158 by assisting in the orientation of magnetization vectors 198. The direction of the fringing magnetic field determines the orientation of the magnetic moments 162 of the hard magnetic layer of the recording medium when located in close proximity to pole tips 190 and 204 of writing element 182.

Please replace the paragraph beginning on page 11, line 3 and ending on page 11 line 12 with the following paragraph:

B3

Unlike conventional prior art writing elements, such as 134 of FIG. 2, writing elements 180 and 182 do not includes magnetic return pole elements that form a return path along which magnetic signals can be conducted to back gap region 194. It has been determined using computer modeling (Micromagnetic and Finite-Element-Method modeling) that a return path is not required to satisfy Ampere's Law. However, the elimination of the return path reduces the amount of soft magnetic material that can concentrate the magnetic signals generated by conducting coil 186 and conduct them through writing pole 184. In other words, the magnetic field (exemplified by lines 203) generated by writing elements 180 and 182 will disperse in many different directions including through the soft magnetic layer 158, through the air, etc., with a smaller portion of the magnetic field lines (indicated by lines 203 in FIGS. 4 and 5) returning to the writing pole 184 at the back gap region 194, as compared to writing elements of the prior art, due to the lack of a magnetic return path along which the magnetic signals can be conducted to the back gap region 194. As a result, the efficiency of writing elements 180 and 182 will be reduced.

Please replace the paragraph beginning on page 11, line 13 and ending on page 11 line 20 with the following paragraph:

B4

Fortunately, the reduced efficiency can be compensated for through the addition of more coil segments 196 placed in close proximity to writing pole 184, such as above and below writing pole 184 as shown in FIGS. 4 and 5. Additionally, the placement of coil segments 196 close to writing pole tip 190 and ABS 192 further enhances the strength of the magnetic field at pole tip 190 (indicated by arrow 205a in FIG. 4 and 205b in FIG. 5) where the perpendicular and longitudinal "recording" will occur. Due to

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structural constraints, it is preferable that coil segments be spaced at least 1 micrometer from ABS 192.